DOCUMENT RESUME

ED 408 578   CS 215 844

ABSTRACT
            A study compared the discourse within a knowledge-building
community in dual mediums: face-to-face meetings and electronic mail postings
to a discussion list. Participants were faculty members and graduate students
at a major university. The study focused on patterns of participation in both
mediums, changes in these patterns, and possible effects of authority on
participation within each medium. It examined issues related to analyzing
electronic discourse and comparing participation in this medium with more
traditional modes of social interaction, especially face-to-face
conversations or discussions. Participants were active in both mediums, and
the group worked collaboratively to build a series of Web-based resources for
teachers over a 3-month period. Data included interviews, audio and video
tapes of meetings, participant observations in a reflective journal, meeting
notes, and e-mail posted to discussion groups. Results indicated, through
discourse analysis, that changes in the management of face-to-face meetings
over time reflected overall changes in authority within the group, initially
run by the project leader and dominated by faculty members; later meetings
showed more shared authority with graduate students having more opportunities
to speak and ask questions. Findings suggest that, unlike face-to-face
conversation, an e-mail conversation can only take place when an opening
message is responded to by another participant, giving access to the "virtual
floor" in retrospect. (Contains 12 references.) (Author/CR)

Comparing face-to-face and electronic discourse: Issues and questions raised in a research study

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Abstract

A research project compared the discourse within a knowledge building community in dual mediums: face-to-face meetings and electronic mail postings to a discussion list. The study participants included faculty members and graduate students at a major University who were under a contractual obligation to develop a product within a specified timeframe. The study focused on patterns of participation in both mediums, changes in these participation patterns, and the possible effects of authority on participation within each medium.

The purpose of the study was to examine issues related to analyzing electronic discourse and comparing participation in this medium with more traditional modes of social interaction, specifically face-to-face conversations or discussions. The participants in this study were active in both mediums, and the group worked collaboratively to build a series of Web-based resources for teachers over a three-month period.

The data collected included interviews of participants, audio and video tapes of face-to-face meetings, participant observations in a reflective journal, meeting notes, and e-mail messages posted to the discussion list. Face-to-face meetings were held twice-a-week and the agenda for them was set by the project leader. The electronic discourse was captured in a discussion list and archived for later analysis.

Method

A variety of discourse analysis methods (Coulthard, 1988) have been developed and applied to a wide range of social settings where interaction occurs. These methods typically analyze face-to- face verbal discourse or conversation in relation to context (Erickson & Shultz, 1981; Goodwin & Duranti, 1992), dialogue (Burbules, 1993), or access to the floor (Edelsky, 1981; Shultz, Florio, & Erickson, 1982).

Conversational analysis (Gumperz & Herasimchuk, 1972) was used to analyze the face-to-face interaction in this study, with a focus that emerged from the data on how power and authority were constituted in the discourse, represented as control over the meeting agenda, schedule, and topical changes within the meetings. The definition of "conversation" used in this study is taken from Burbules (1993):

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> involve(s) two or more participants in open participation, putting forth alternative statements of variable duration constituting a sequence that is continuous and developmental. (p. 66)

Applying this definition to electronic discourse (e-discourse), I developed the following working definition of an "electronic conversation" or e-conversation:

> A series of electronic mail postings that involve two or more participants in open participation, putting forth alternative statements of variable duration (i.e., length) constituting a sequence that is continuous and developmental.

In analyzing the electronic discourse (e-discourse), a number of methodological and theoretical issues arose that will be the major focus of this paper. Many prior studies of electronic discourse (or computer-mediated communications) have made assumptions about the nature of this medium, often based on theories taken from the study of spoken discourse. This study raised serious questions (see the Results section for more on these questions) that should be carefully considered whenever electronic discourse is studied and analyzed.

In analyzing e-discourse, it is important to differentiate between public and private e-conversations. Private e-conversations are those that occur between two or more people and are not posted to the group list server or publicly available to everyone in a group. These may be similar in function to side conversations in a face-to-face meeting. [Interestingly, these private e- conversations are not disruptive in the same way that side conversations can be in a face-to-face meeting] Public e-conversations, which were the focus of this study, are those that include me ges posted to a group list server, whether directed to a specific person or to the group at large.

Results

Discourse analysis revealed changes in the management of the face-to-face meetings over time that were reflective of overall changes in authority within the group. Initial face-to-face meetings were organized and run by the project leader. An examination of speaking turns, including number/meeting and length, at these early meetings were dominated by faculty members. Later meetings showed more shared authority for speaking in the group with graduate students having more opportunities to speak and ask questions. The last meeting videotaped for this study was actually run by a graduate student, who managed the conversation and access to the floor.

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Comparing participation in the face-to-face meetings with participation in e-discourse required reflection on assertions about the nature of conversations in both mediums. A face-to-face conversation is bounded by time and space where the conversation exists when the participants are in the same physical proximity. Face-to-face conversations have specific ritual characteristics (opening, closing, topical changes, etc.) that are constrained by the speech boundaries of space and time (i.e., a conversation starts after people arrive and ends before people leave the room.).

An e-conversation starts when someone posts a message that someone else responds to and ends when no additional messages are posted on that topic. The opening 'd closin̯g of an e-conversation are much more loosely defined and nebulous . ɔn in a face-to-face conversation. E-conversations are also different from face-to-face conversations in that they do not exhibit overlapping speech, do not have the same boundaries (constraints on time or space), and do not have the same kinds of events (spoken vs. written e-mail messages) as face-to-face conversations.

The face-to-face meetings are actually an agreed upon time and place for sharing a single speaking floor (or multiple floors) and represent focused attention by the group on social interaction with specific speaking rights and obligations for all participants. While the conversation in the face-to-face meetings ranges over a variety of topics, in order to coordinate participation, they require everyone's attention and negotiation of the floor for speaking turns. These face-to-face conversations represent speech events that were bounded by time and space, but not by topic, and the floor was usually controlled by the a single person, often the project leader.

The e-discourse represents multiple conversational floors without specific focused attention by everyone on the messages posted. The instances of e-conversation analyzed represent selected threads of postings around topics that constitute a single conversational floor. These conversations represent events that were bounded by topic, and not by time and space, and the floor was not controlled by any one person, but rather by the topic itself. Participants felt an obligation to read and respond to messages posted to the discussion list, but there are instances in the data where a conversational opening message was ignored by all members of the group.

One hypothesis that came out of this study was that e-conversations take place and participants make sense of them within a "virtual floor." Unlike a face-to-face conversation, an e-conversation can only take place when an opening message is responded to by another participant. In this sense, participants in an e-conversation only have access to the "virtual floor" in retrospect, when another person responds to a prior message they posted.

If, as in the traditional conception of conversational floor, the "virtual floor" is negotiated

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within a collective group, then conversation requires participation based on rights and obligations that dictate acceptable behavior within the medium. This means that the collective determines when an e-conversation occurs by sanctioning or granting access to the floor by means of a response to a message. Any participant within the group can grant access to the "virtual floor" by responding to a message, but all must ignore the message for access to be denied. This idea of a "virtual floor" raises interesting questions about the way we think about conversational floors in other mediums.

E-conversations seem to have differences, as well as similarities, with traditional face-to-face conversations. Observed similarities between e-conversations and face-to-face conversations:

> Multiple conversational floors that manage/coordinate turn-taking or turn exchange
> Sequence of turns/messages over time that lead to topical coherence
> Similar roles for speakers and listeners

Observed differences between e-conversations and face-to-face conversations:

> The "floor" and access to speaking turns - managed by verbal & non-verbal (face-to-face) vs. gained in retrospect (e-mail)
> Boundaries and transition between speech events - time & space (face-to-face) vs. topical (e-mail)
> Missing in e-mail but found in face-to-face - speech overlap, silence, non-verbal communication
> Topical changes - managed by speaker (face-to-face) vs. new message or new subject (e-mail)
> Openings and closings - markers (face-to-face) vs. absent (e-mail)
> Relationship between speaker & listener - verbal & non-verbal (face-to-face) vs. established in retrospect (e-mail)

Conclusion

This study looked at speaking rights and obligations for both mediums. In doing so, a number of outstanding questions emerged from this study:

> Are there similar units of analysis for face-to-face and e-discourse?
> Are the boundaries for speech events the same in both mediums?
> How should e-conversations be compared with conversations in face-to-face meetings?
> What constitutes a conversational floor in an electronic discussion?

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Does it make sense to analyze e-discourse for topical changes, overlap in speech, silence, turn taking, transition between speech events, and access to a single conversational floor?
What constitutes an e-conversation?
What are the boundaries of an e-conversation?
Does an e-conversation have an opening, a sequence of messages that follow a thread or topic, and an ending?
What happens when a person is denied access to the virtual floor in e-discourse?
How do participants know when an e-conversation has ended?
What are the units of analysis for an e-conversation? Are they the same as for a face-to-face conversation? Are the messages the same? Are the speaking turns the same? Is the conversational floor the same?
What rights and obligations do participants feel for participation in e-discourse?

Given the widespread use of electronic mail within colleges and schools, more research is needed to develop appropriate methods of analysis of e-discourse. Prior research on e-discourse (Maxur & Bliss, 1995; Muscella & DiMauro, 1995; Ruopp et al, 1993; Thomas et al, 1996) has assumed the discourse to be similar to written or spoken communication, when in fact is has characteristics of both, but is neither.

In order to understand, and perhaps to facilitate or improve, the learning opportunities that occur through participation in e-discourse, we must be explicit about our underlying assumptions for this new medium. If we assume that participation in e-discourse is similar to participation in more traditional forms of social interaction, especially spoken discourse in a face-to-face setting, then we may be oversimplifying the complexity of this type of interaction.

As more and more of our students, faculty members, and others within our educational institutions depend more and more on e-discourse as a mode of communication, it is in our best interests to pursue more research so we better understand the medium of e-discourse.

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